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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/066,421

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EXAMINER

CLARK, SHEILA V

ART UNIT

PAPER NUMBER

2815

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Please find below and/or attached an Office communication concerning this application or proceeding.



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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 0

Application Number: 10/066,421
Filing Date: January 30, 2002
Appellant(s): BALDONADO ET AL.

MAILED

JUN 08 2004

GROUP 2800

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9-2-2003 and 2-19-2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the

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decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims Appellant's brief includes a statement that claims 1, 2, 4-7 and 8-15 and 16-21 stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

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(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 contains a trademark "MicroStar" whereby said trademark or trade name cannot be used in the claims to identify a particular material or product and also constitutes improper use of the trademark or trade name.

Claims 1, 2, 4-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the amended features in the claims and new claims, there appears to be nothing in the original disclosure that supports the attachment features recited whereby a first end of a wire is attached by a ball bond and second end by a stitch bond and the first end of a second wire by and ball and the second end by a stitch bond. The only stitch feature is discussed on page 4, line 8 with regard to the bond on lead 26. Contrary to applicant's arguments figure 4 fails to show the stitch features recited and therefore fails to make up for the deficiencies of the instant disclosure. The continuous wire recited in claim 22 fails to be taught in the disclosure. Page 4 lines 15 and 16 with reference to Figure 4, clearly

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references and shows two wires 20 and 24 and discusses that they are plural wires not a single continuous wire.

Claims 1, 2, 4-21 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

It is unclear what the device structure is of the interposer substrate of the instant invention. The interposer pad is the only device that appears to be shown in the drawings and the specification fails to describe said substrate. There is further no description of an electro-less substrate (other than a mention of the substrate on page 2, line 7) in the disclosure nor shown in the drawings. It is also unclear to what "electro-less" refers in this instance.

Other than a mention there is also no description or showing in the drawing of a ball grid array. Where is this array located? The chip shown and discussed utilizes wire bonding so it is unclear where a ball grid array would be positioned or located.

There also appears to be no description in the disclosure of for a floating interposer pad.

Further the disclosure discloses use of two wires connected to the interposer. It is unclear where there is basis for single bond wire attached to the interposer pad as recited in claims 3.

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There also appears to be no discussion in the disclosure or showing in the drawings for a chip having the particular input, output, supply and ground nodes.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1,2, 4-21 in so far as definite are rejected under 35 U.S.C. 102(a) as being anticipated by Schmidt et al.

Schmidt et al shows a first end of a first bonding wire attached to chip 2 and a second end attached to an interposer pad 4. A second bonding wire is attached at a first end to said interposer pad and at a second end to lead 3. Said bond wire is gold and col.5, line 1 teaches providing ball bonding to said interposer pad.

Claims 1, 2, 4, 6-21 in so far as definite are rejected.

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

(11) Response to Argument

The instant disclosure present relatively sparse details relative wire attachment. The amendment filed 12-06-2002 amended the claims to include specifics relative to

wire attachments with the use of "ball bond" and "stitch bond". Applicant's original disclosure, drawings nor claims, barely mention these bonds and further makes no emphasis relative to the importance of these bonds nor relays that the novelty of the invention hinges on these bonds. The attachment of a "stitch bond" relative to this invention was only briefly noted on page 4 of the instant disclosure on line 8 regarding the attachment of bonding wire 24 to lead 26. There is no mention of bonding wire 20 having any relation to a stitch bond.

The original disclosure provides very sparse disclosure and relays that the novelty of this invention hinges only upon use of two wires 20 and 24 from a die 10 lead 26 to reduce wire sweep, wire spacing and wire shorts instead of the direct connection of one wire taught by the prior art and shown in figure 1. This technique however is very well known in this art and is clearly shown by Schmidt et al who utilizes wires 6 and 7 from die 2 to lead 3 exactly the same as the applicant's invention and for the same reasons.

Applicant further attempts to incorporate features in the drawings that are not shown. Without some explanatory information relative to the type of wire bond connection Shown, the drawings only show wires attached to pads. One cannot look at a figure and know that it is "ball" nor "stitch" bonded. A particular type of bond would have to be "explained" and the disclosure fails to adequately provide this level of explanation relative to all of the areas of coverage the applicant is attempting to receive. Further applicant argues features relative to an " interposer substrate". Only interposer

pads are discussed and shown in the various figure drawings. No substrate of any kind is shown nor described with any detail in the disclosure. Page 5, last paragraph of the instant invention makes mention of only interposer "pads" and provides no specific details relative to a substrate. Applicant again attempts to argue specifics relative to this substrate that have not been shown. There is not any one look that an interposer substrate can possess. It may have multiple structural features and many differing looks. The same is also true for other features that the applicant has attempted to describe that have not been provided with any detail in the disclosure such as ball grid array package and electro-less substrate. A ball grid array package and electro-less substrates may again have a variety of features without adequate disclosure cannot be described having one standard look. There is also no support in the disclosure for a "floating pad".

Applicant as further taken the term " electro-less" to mean "insulating". Electro-less is well known as a "conductive" plating process (see various sheets of definitions attached). Applicant's definition of this term to mean an insulation substrate is not well known in this art. If applicant is using this term to have a differing meaning than that which is well known in this art, it would seem that a specific definition and description and should have been presented in detail in the original disclosure along with a figure. Applicant's arguments on page 5 of his brief relative to " ball grid array" appear to suggest that the pads shown in the original drawings would as a standard be attached to solder balls which is not the case. Again without specific explanation said pads may

or may not be attached and may be attached to many types of external structure such as pins, other pads, other chips, mechanical structures such as heat sinks, etc. Again the applicant is attempting to argue features that have not been disclosed nor shown in this original drawings.

Lastly, applicant attempts to provide new drawings during the course of this prosecution that have not been approved by the Examiner. Sparse written details and lack of adequate disclosure fail to allow the applicant flexibility for pictorial representation. Since there is no one set standard for what the applicant is attempting to depict and since the applicant failed to establish particularities relative to specific structure the drawings possess new matter issues with structure that has not been defined as such in the disclosure.

It is therefore believed that the novelty expressed in the original disclosure relative to the applicants invention in so far as the features have been adequately explained have been clearly taught to be well known by the reference to Schmidt et al.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

S. V. Clark
Primary Examiner
Art Unit 2815

June 1, 2004

Conferees

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